No.



8100060

# HHE UNITHED SHAYIES OF AMIERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

# C. Harvey Campbell, İr.

Concreas, THERE HAS BEEN PRESENTED TO THE

#### Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen years from the date of this grant, subject to the payment of the required fees and periodic replenishment of viable basic seed of the variety in a public repository as provided by LAW, the right to expect others from selling the variety, or offering it for sale, or reproducing it, porting it, or exporting it, or using it in producing a hybrid or different therefrom, to the extent provided by the Plant Variety Protection Act.

NITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS F CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Germain's Acala GC-363'

In Testimony Watercot, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 24th day of March in the year of our Lord one thousand nine hundred and eighty-three.

John R Block

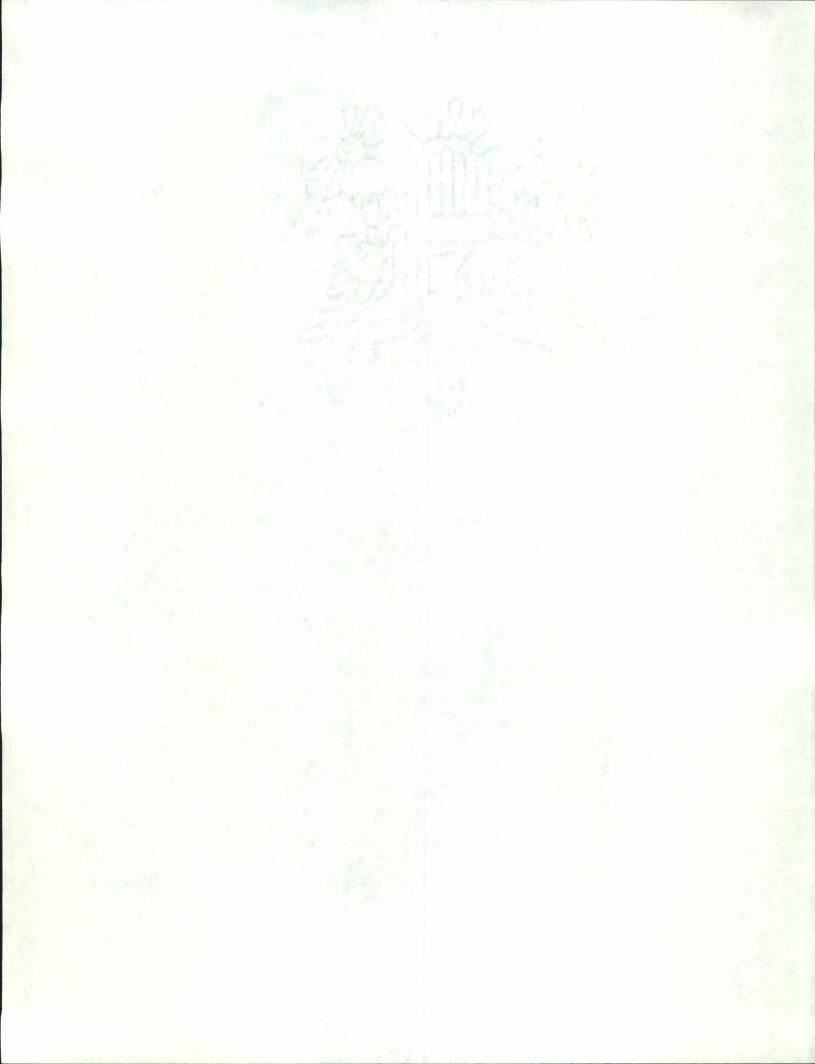
Secretary of Agriculture

Attest.

Kenneth H. Evas

Nant Variety Protection Office Grain Division

Agricultural Marketing Service



#### INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

#### ITEM

- Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties:

  (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

rec'd FEB 27 1981

- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

UNITED STATES DEPARTME	FORM APPROVED OMB NO. 40-R382						
APPLICATION FOR PLANT VARIE INSTRUCTIONS: See Reverse.	No certificate for pla			ant variety protection may empleted application form			
1a. TEMPORARY DESIGNATION OF VARIETY	16. VARIETY NAME	6P-363 99		IAL USE ONLY			
HCA, Inc-363 & GC 363-21/81	To be determ		PV NUMBER	100060			
2. KIND NAME	3. GENUS AND SPE		FILING DATE	TIME A.M.			
Cotton	GOSSYPIUM HIR	SUTUM	2/27/81 FEE RECEIVED	11:00 P.M.			
4. FAMILY NAME (BOTANICAL)	5. DATE OF DETER		\$ 500.00	2/27/81			
MALVACIEAE	November 1, 1	979	\$ 250.00	2/8/83			
6. NAME OF APPLICANT(S) C. HARVEY Campbell,	7. ADDRESS (Street Code)	and No. or R.F.D. No.,	City, State, and ZIP	8. TELEPHONE AREA CODE AND NUMBER			
HC & A, Inc.	P.O. Box 96 Bakersfield			(805)833-1751			
9. IF THE NAMED APPLICANT IS NOT A PORGANIZATION: (Corporation, partners)	ERSON, FORM OF	10. IF INCORPORAT	ED, GIVE STATE AND	11. DATE OF INCOR- PORATION			
Corporation		The state of the s	ia 3-13-80	3-13-80			
12. NAME AND MAILING ADDRESS OF APP	LICANT REPRESENTA	ATIVE(S), IF ANY, TO	SERVE IN THIS APPLIC	CATION AND RECEIVE			
HC & A, Inc., P.O. Box 965	66, Bakersfield	, CA93389					
13. CHECK BOX BELOW FOR EACH ATTAC							
X 13A. Exhibit A, Origin and Bre	eding History of the	Variety (See Section	52 of the Plant Variet	y Protection Act.)			
X 13B. Exhibit B, Novelty States	nent.						
X 13C. Exhibit C, Objective Desc	ription of the Variety	(Request form from	Plant Variety Protect	tion Office.)			
13D. Exhibit D, Additional De			13	,			
the second secon	Part Car	in the second					
14a. DOES THE APPLICANT(S) SPECIFY THA SEED? (See Section 83(a). (If "Yes," answ			NO	A CLASS OF CERTIFIE			
14b. DOES THE APPLICANT(S) SPECIFY THA			B, HOW MANY GENER	ATIONS OF PRODUC-			
LIMITED AS TO NUMBER OF GENERAT	IONS?	FOUNDATION	BREEDER SEED?  REGISTERED	CERTIFIED			
15a. DID THE APPLICANT(S) FILE FOR PRO	TECTION OF THIS VAI			NO (If "Yes," give			
name of countries and dates.)				(2) 233, 833			
15b. HAVE RIGHTS BEEN GRANTED THIS V	ARIETY IN OTHER CO	OUNTRIES? TYES	NO (If "Yes,"	' give name of countries			
and dates.)		A Total					
16. DOES THE APPLICANT(S) AGREE TO TO JOURNAL?	NO						
17. The applicant(s) declare(s) that a viab replenished upon request in accordance.	le sample of basic see ce with such regulatio	d of this variety will ons as may be applica	be furnished with the ble.	application and will be			
The undersigned applicant(s) is (are)	The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section						
Applicant(s) is (are) informed that fall	se representation here	ein can jeopardize pro	otection and result in	penalties.			
2/23/81		C. 1+	~ Com	lell :			
(DATE)		11 11 11 11	SINATURE OF APPL	ICANT)			
(DATE)		-	(SIGNATURE OF APPL	ICANT)			

89 W 2/22/83 GERMAIN'S Acolo BREEDING HISTORY OF GC-363/2 89 W 9/10/82

GC-363-2 is a reselected line from T9246.

ITEM 13a:

T9246 is a USDA line from the U.S. Cotton Research Station, Shafter, California. T9246 is an  $F_0$  selection from a cross of S1603 and T4845 which were experimental lines from Shafter. S1603 is a Shafter Station experimental line from a group of lines from which Acala SJ-1 and SJ-2 were derived. T4845 is a line derived from the cross C6TE X NM B3080.

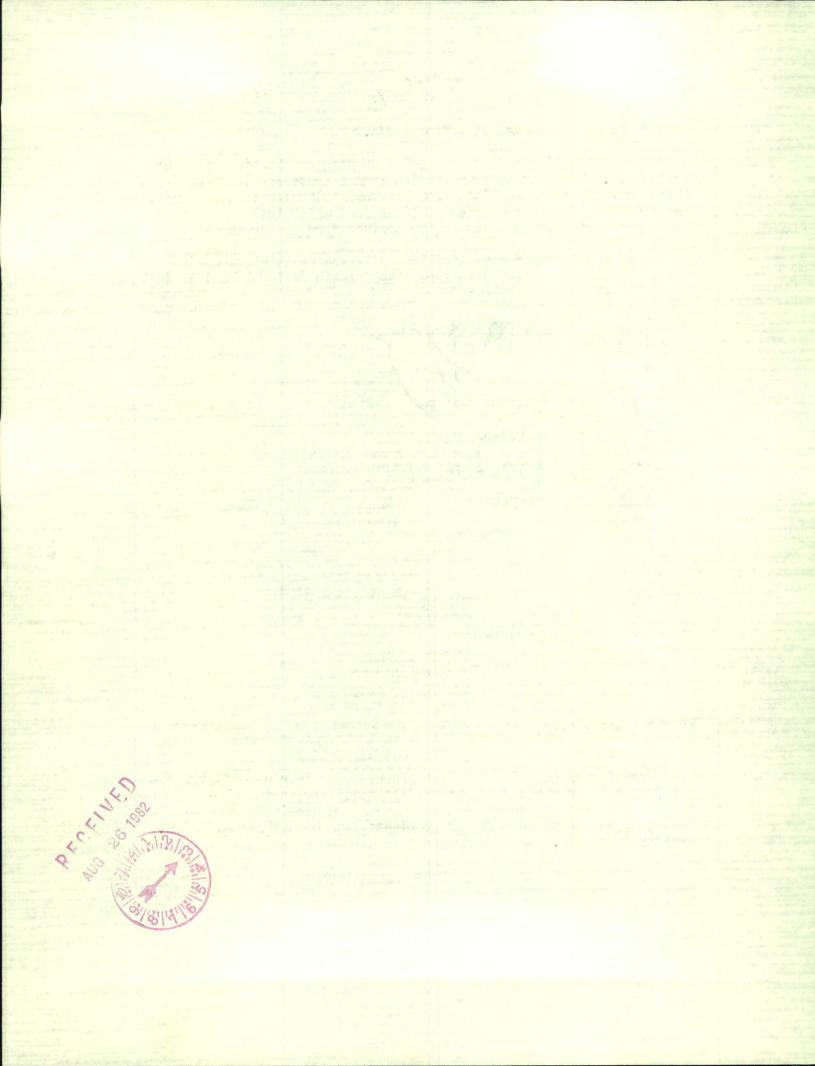
T9246 was reselected for verticillium wilt and heat tolerance in 1979 and 1980, and yield tested in three San Joaquin Valley locations in 1980. A flow sheet is given below:

Year 1969	Procedure S1603 X T4845
1970	CAL 70-91 Bulk F <sub>2</sub>
1971	S3894 Bulk F <sub>3</sub>
1972	T6969-7 F4
1973	T7325-6 F <sub>5</sub>
1974	T7643-3 F <sub>6</sub>
1975	T8193-2 F <sub>7</sub>
1976	T8754-1 F <sub>8</sub>
1977	T9246 Bulk F9
1978	no increase
1979	GC-363-1 Bulk F10
1980	GC-363-2 Bulk F11

GC 363-2 = The F<sub>11</sub> of S1603 X T4845

The stability of GC-363-2 has been observed for four reproductive generations and the variety has maintained stability in its plant characteristics. The variant level is too low to allow meaningful percentage counts of variants, therefore no variants have been observed and the variety is stable.

The breeding objective was to breed an Acala-type cotton with verticillium tolerance and heat resistance superior to SJ-2, and yield equal to or better than SJ-2.



8 2/13/83 GERMAIN'S

Cotton Application: Acala Cotton GC-363-2 No. 8100060

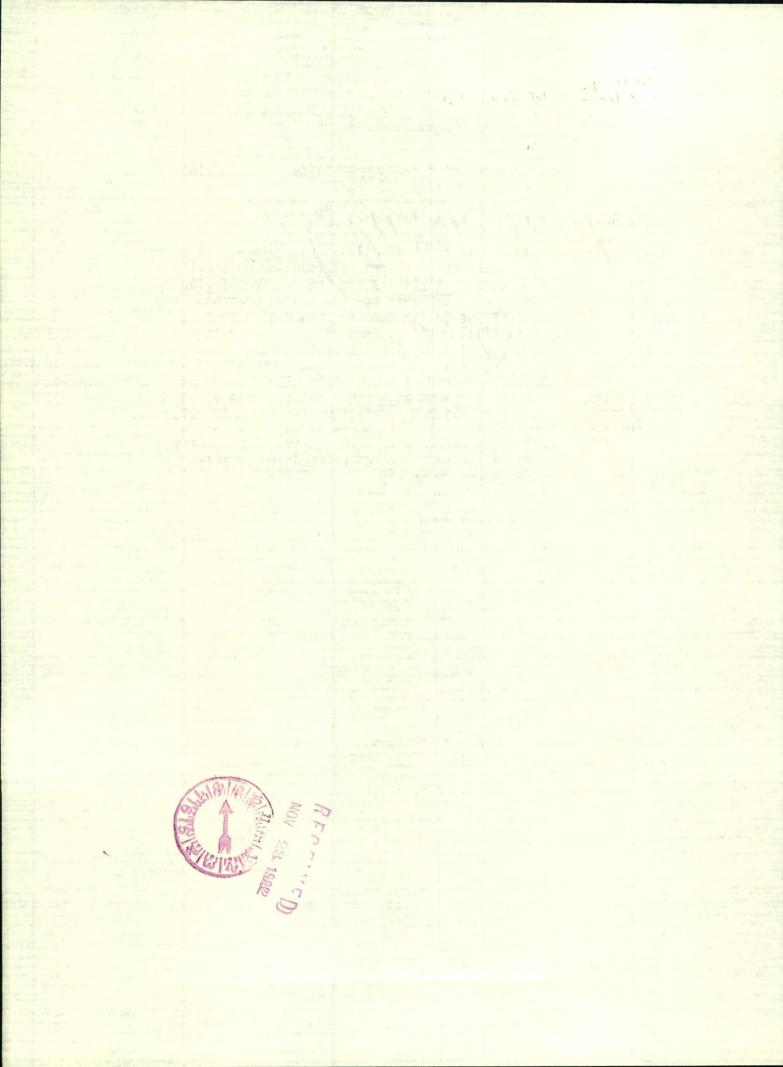
GC-363-2 is a variety reselected from USDA Shafter Advance Line T 9246.

The reselection procedure was as follows:

1979: T 9246 was planted at the Lost Hills nursery in a plot 2 rows X 1300 ft. Two hundred plants were selected for uniformity to type, heavy fruiting characteristics and freedom from foliar verticillium wilt symptoms. The 1979 growing season presented an opportunity to select for boll retention under high temperature conditions. Verticillium wilt in the plot was moderate to severe. The 1979 200-plant population was designated as GC-363-1.

1980: GC 363-1 was planted in replicated plots with 2400 ft of row at Tulare, and 2400 ft of row at the Lost Hills nursery. Both nurseries were rogued for foliar verticillium wilt and uniformity to plant type. Verticillium wilt was severe at Tulare and moderate at Lost Hills. Both plots were harvested and bulked. Lost Hills contributed about 60% of the seed and Tulare about 40%. This bulked seed is designated as GC 363-2.

C. Harvey Campbell, jr.



ITEM 13b: NOVELTY STATEMENT Acalage-3632 Jgn 9/10/82

GC-363-2 most closely resembles SJ-2, including height, maturity, boll shape and weight, general plant appearance, and general fiber characteristics.

The two major characteristics that distinguish GC-363-2 from SJ-2 are given below:

- 1) Under verticillium wilt condition GC-363-2 will have 300 to 500% less infected plants than SJ-2. Data is presented for 1980 and 1981 for 3 locations.
- 2) Both fiber strength and yarn strength of GC-363-2 exceed SJ-2. Fiber and yarn data for 1980 and 1981 is here presented. Acala Cotton Board data from 1981 indicates that  $T_1$  of GC-363-2 is stronger than SJ-2. All the fiber and yarn data is consistent in showing greater fiber and yarn strength for GC-363-2 vs. SJ-2.



88 2/23/83

ITEM 13b: NOVELTY STATEMENT ACOGC-363-2 SYN 9/10/82

# Fiber Data for 1980 and 1981

SJ-2	Pressley '0'	T <sub>1</sub> 25.7	1980
GC-363-2	108	30.4	
	Pressley '0'	T <sub>1</sub>	1981
SJ-2	99*	27.5*	25.6+
GC-363-2	101*	28.4*	27.6+
			LSD .05 = 1.2+ CV % = 3.9

## Spinning Data for 1980 and 1981

1980 Yarn Strength\*

	Carded			
	22's	50's	Ave. Break Factor	
SJ-2	119	46	2463	
GC-363-2	133	55	2879	

1981 Yarn Strength\*

	Carded			
	22's	50's	Ave, Break Factor	
SJ-2	115	43	2349	
GC-363-2	131	51	2717	

<sup>\*</sup> Texas Tech data

<sup>+</sup> Acala Cotton Board data

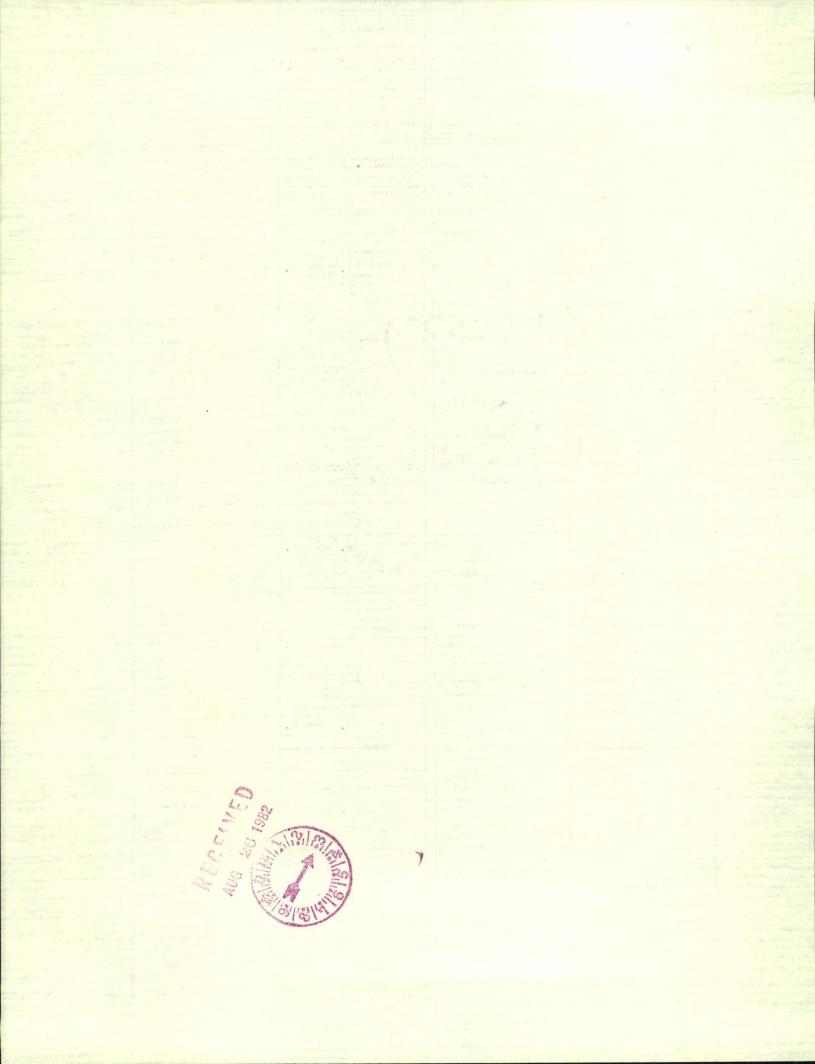


NOVELTY STATEMENT GC-363-2 ITEM 13b:

8818

# Verticillium Wilt Tolerance Data

1980	Location	Rep	Variety	Vert. Symper 100 p	ptom lants
	Tulare	I II III IV	GC-363-1	10 15 8 14	Aver.
		I II III IV	SJ-2	52 77 50	Aver.
1981		v lei		1	
1301	Tulare	I II III IV	GC-363-2	9 10 2 8 7 3	Ayer,
		I II III IV	SJ-2	25	Aver.
	Lost Hills	II III IV	GC-363-2	9 4 13	Aver.
		I II III IV	SJ-2	32 14 20 16	Aver.



# ASSIGNMENT OF PLANT VARIETY PROTECTION CERTIFICATES NOS. 8100060, 8100061, 8100062, 8200166 AND 8400129 THIS ASSIGNMENT is executed this 15th day of November, 1984 by C. HARVEY CAMPBELL, JR., DAVID L. WEST, H. P. ANDERSON III and KENNETH L. PURYEAR (sometimes hereafter collectively "CWA") and GERMAIN'S, INC., a California corporation (hereafter "Germain's"); WITNESSETH: WHEREAS, on March 24, 1983, the Secretary of the Unite States Department of Agriculture, pursuant to the United States Plant Variety Protection Act of December 24, 1970 (84 Stat. 1542 7 U.S. C. SS 2321 et seg.: hereafter the "Act"), issued to C.

WHEREAS, on March 24, 1983, the Secretary of the United States Department of Agriculture, pursuant to the United States Plant Variety Protection Act of December 24, 1970 (84 Stat. 1542; 7 U.S.C., §§ 2321 et seq.; hereafter the "Act"), issued to C. Harvey Campbell, Jr. Plant Variety Protection Certificate Nos. 8100060, 8100061, 8100062 and 8200166 for Germain's Acala GC-363, Germain's Acala GC-445, Germain's Acala GC-555 and Germain's Acala GC-510, respectively; and

WHEREAS, on September 28, 1984, the Secretary of the United States Department of Agriculture pursuant to the Act issued to CWA Plant Variety Protection Certificate No. 8400129 for Germain's Acala GC-362; and

WHEREAS, by letter dated September 27, 1984, C. Harvey Campbell assigned Plant Variety Protection Certificate Nos. 8100060, 8100061, 8100062 and 8200166 to CWA; and

WHEREAS, by Agreement dated October 15, 1984 between CWA and Germain's (hereinafter the "Agreement"), CWA agreed to execute and deliver to Germain's conditional assignments of their plant variety protection rights with respect to Germain's Acala GC-362, Germain's Acala GC-363, Germain's Acala GC-445, Germain's Acala GC-510 and Germain's Acala GC-555 and the plant variety protection certificates issued with respect thereto, Certificate Nos. 8400129, 8100060, 8100061, 8100062 and 8200166, respectively;

NOW, THEREFORE, in consideration of the foregoing recitals and of the mutual covenants hereinafter set forth, IT IS AGREED as follows:

- 1. Assignment. CWA hereby assigns to Germain's all their right, title and interest in and to their plant variety protection rights with respect to Germain's Acala GC-362, Germain's Acala GC-363, Germain's Acala GC-445, Germain's Acala GC-510 and Germain's Acala GC-555 and the plant variety protection certificates issued with respect thereto, Certificate Nos. 8400129, 8100060, 8100061, 8100062 and 8200166, respectively, on condition that, and so long as, Germain's fully performs its obligations under paragraphs 1, 2, 5, 6, 7, 11, 12 and 14 of the Agreement.
- 2. Grant of Security Interest. Germain's hereby grants to CWA a security interest in the plant variety protection rights with respect to Germain's Acala GC-362, Germain's Acala GC-363, Germain's Acala GC-445, Germain's Acala GC-510 and Germain's Acala GC-555 and the plant variety protection certificates issued with respect thereto, Certificate Nos. 8400129, 8100060, 8100061, 8200166 and 8100062, respectively, to secure Germain's performance of its obligations under paragraphs 1, 2, 5, 6, 7, 11, 12 and 14 of the Agreement.
- 3. <u>Incorporation by Reference</u>. The parties incorporate herein by reference the provisions of paragraphs 5 (Plant Variety

Protection), 10 (Term), 11 (Sale or Assignment by Germain's) and 12 (Right of First Refusal), pertaining to plant variety protection certificates, specific reference to which should be made for further particulars.

4. Recording. Germain's may record this assignment in accordance with section 101 of the Act (7 U.S.C., § 2531).

IN WITNESS WHEREOF, the parties hereto have executed this assignment on the day and year first hereinabove written.

GERMAIN'S INC

C. Harvey Campbell, Jr.

Roger A. Pirie

"Germain's"

David L. West

H. P. Anderson III

Kenneth L. Puryear

"CWA"

APR LI 1900 AMS PVPO

8100060

#### ASSIGNMENT

For good and valuable consideration, receipt whereof is hereby acknowledged, the undersigned Germain's, Inc., a California corporation, of 4820 East 50th Street, Los Angeles, California 90058, does hereby sell, assign, transfer and set over to Germain's, Inc., a Delaware corporation, of 4820 East 50th Street, Los Angeles, California 90058, the entire right, title and interest in and to the plant varieties and Plant Variety Protection Certificates as set forth in Schedule 1 annexed hereto.

GERMAIN'S, INC., a California corporation

By

Peter A. Fulgoni

President



STATE OF CALIFORNIA ) ss.
COUNTY OF LOS ANGELES )

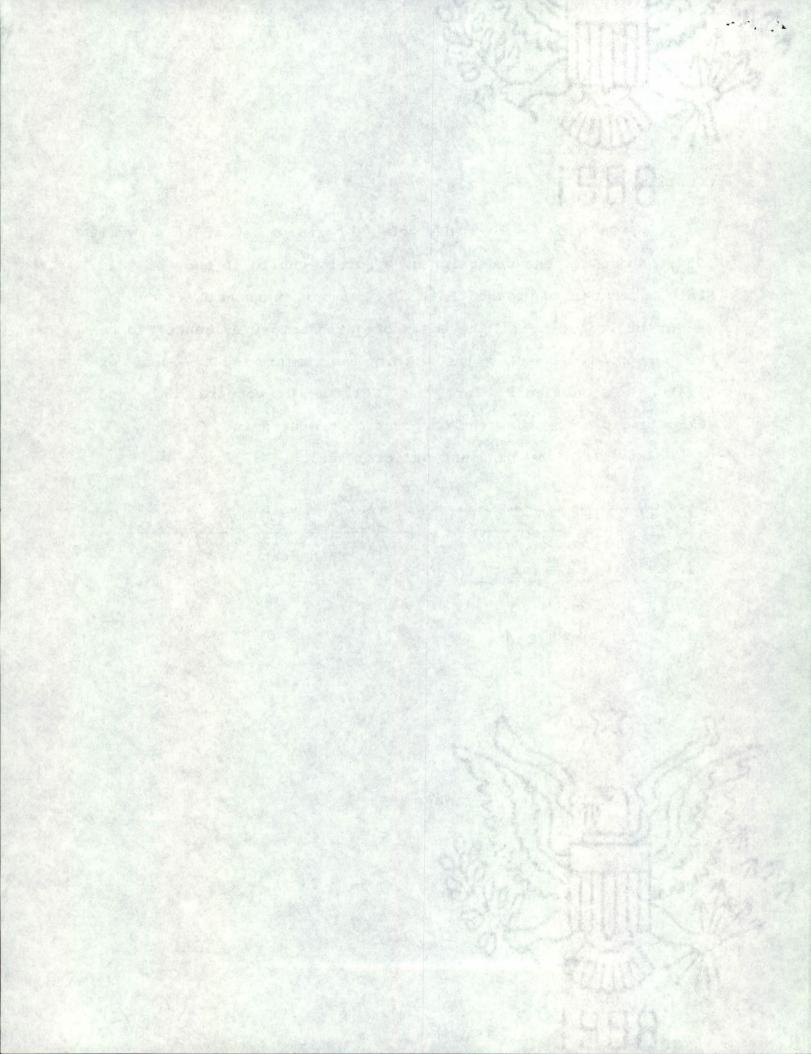
On this Aday of February, in the year 1989, before me, the undersigned, a Notary Public in and for said State, personally appeared Peter A. Fulgoni, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed the within instrument as President on behalf of Germain's Inc., a California corporation, and acknowledged to me that the corporation executed it.

WITNESS my hand and official seal.



Notary Public in and for said State

4



DLY:bb	11/13/87	LRE	2.0012.0.0	
DI ANTE DI	ATTENETIC			

#### PLANT PATENTS

	Name and Description	Country	Number	Effective Date	Expiration Date (Year)	Renewal Information
0	NOTTON					
A	cala GC-362	U.S.A.	8400129	9/28/84	2001	
A	cala GC-363	U.S.A.	8100060	3/24/83	2000	
A	cala GC-445	U.S.A.	8100061	3/24/83	2000	
A	cala 0C-510	U.S.A.	8200166 8100066 akz	3/24/83	2000	
Ac	cala GC-555	U.S.A.	8100062	3/24/83	2000	
W	<u>IEAT</u>					
W	neat W-444	U.S.A.	7600079	12/76	1993	



### CUYLER BURK

COUNSELLORS AT LAW

PARSIPPANY CORPORATE CENTER
FOUR CENTURY DRIVE
PARSIPPANY, NEW JERSEY 07054-4663

(201) 734-3200

FACSIMILE: (201) 734-3201

NEW YORK OFFICE: 350 FIFTH AVENUE, SUITE 3304 NEW YORK, NEW YORK 10118

DIRECT DIAL:

May 30, 1996

#### FEDERAL EXPRESS

Plant Variety Protection Office 500 NAL Building 10301 Baltimore Avenue Beltsville, Md. 20705

Attention: Anne Zempolich

Re: Assignment of Plant Variety Protection Certificates From Germain's, Inc. to Germain's Cotton Seeds, Inc.

Dear Ms. Zempolich:

As we discussed this morning, I have enclosed for filing an Assignment of eight (8) plant variety protection certificates from Germain's, Inc. to Germain's Cotton Seeds, Inc. In addition, I also have enclosed a \$200.00 check payable to the United States Treasurer as payment of the applicable filing fees.

As you can see from the acknowledgement attached to the Assignment, Doug Elkins, the CEO of Germain's, Inc., executed the Assignment on behalf of Germain's, Inc. If you need to confirm that Mr. Elkins is the CEO of Germain's Inc. with someone from Germain's, Inc., the phone number for Germain's, Inc. is (209) 233-8823.

If you have any questions concerning the enclosed Assignment or its filing, please do not hesitate to call me.

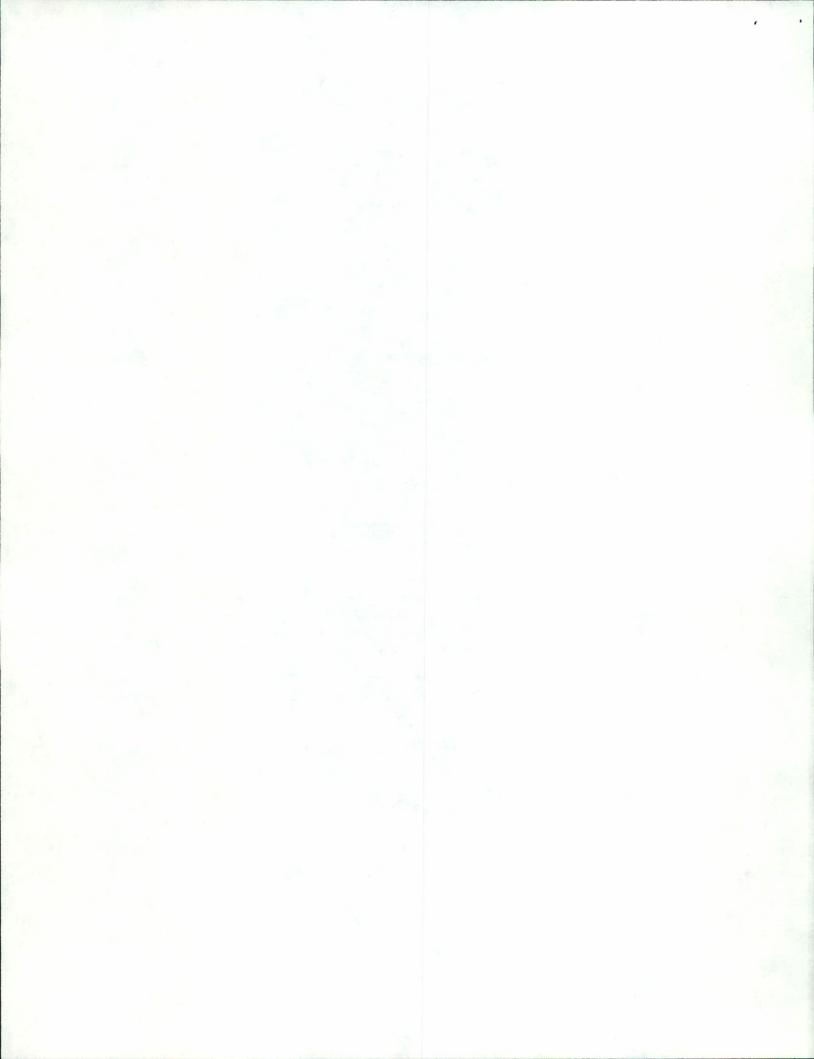
Very truly yours

J. Scott Mackay

JSM:mab

cc: George Petrides (via regular mail)

I:\216-005\corres\zempoLich.001



#### ASSIGNMENT

#### (PVP Certificates)

This Assignment is made and entered into as of November 30, 1995, by and between Germain's, Inc., a Delaware corporation ("Assignor"), and Germain's Cotton Seeds, Inc., a New Jersey corporation ("Assignee").

WHEREAS, Assignor and Assignee have entered into that certain letter agreement, dated November 30, 1995, pursuant to which Assignor has agreed to assign certain Plant Variety Protection Certificates to Assignee upon the terms and conditions contained therein and below.

NOW, THEREFORE, in consideration of the premises and mutual promises contained herein, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

- Assignor hereby assigns, conveys and transfers to Assignee, and Assignee hereby accepts from Assignor, all of Assignor's right, title and interest in and to the Plant Variety Protection Certificates (the "Certificates") which are set forth on Schedule 1, which Schedule 1 is attached hereto and incorporated herein by this reference.
- Assignee shall be responsible, at its own expense, for the preparation, legalization and filing of any documents and the obtaining of any third-party or governmental approvals or consents which are not required to be obtained by Assignor under the above-referenced Agreement, which may be necessary to effect and record the assignment of any of the Certificates.

IN WITNESS WHEREOF, the parties hereto have caused this Assignment to be executed as of the date first set forth above.

Germain's, Inc.

Name:

Title:

Germain's Cotton

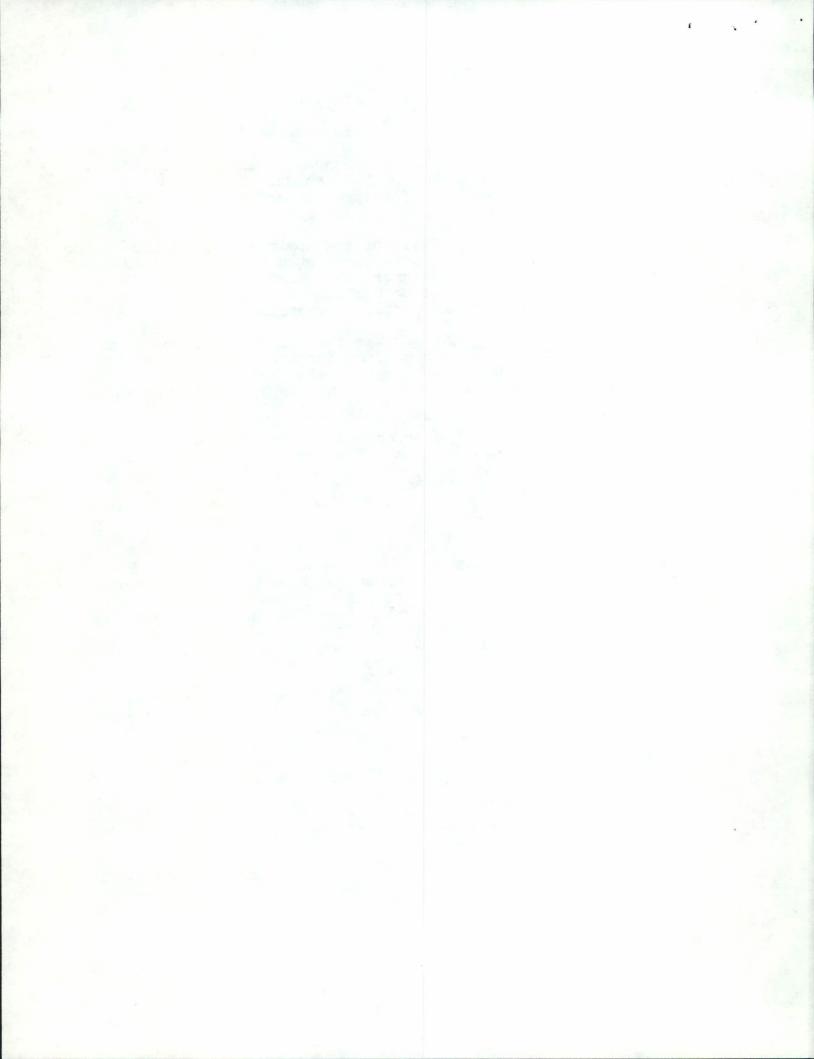
Seeds, Inc.

Name: George Petrides

Title: President

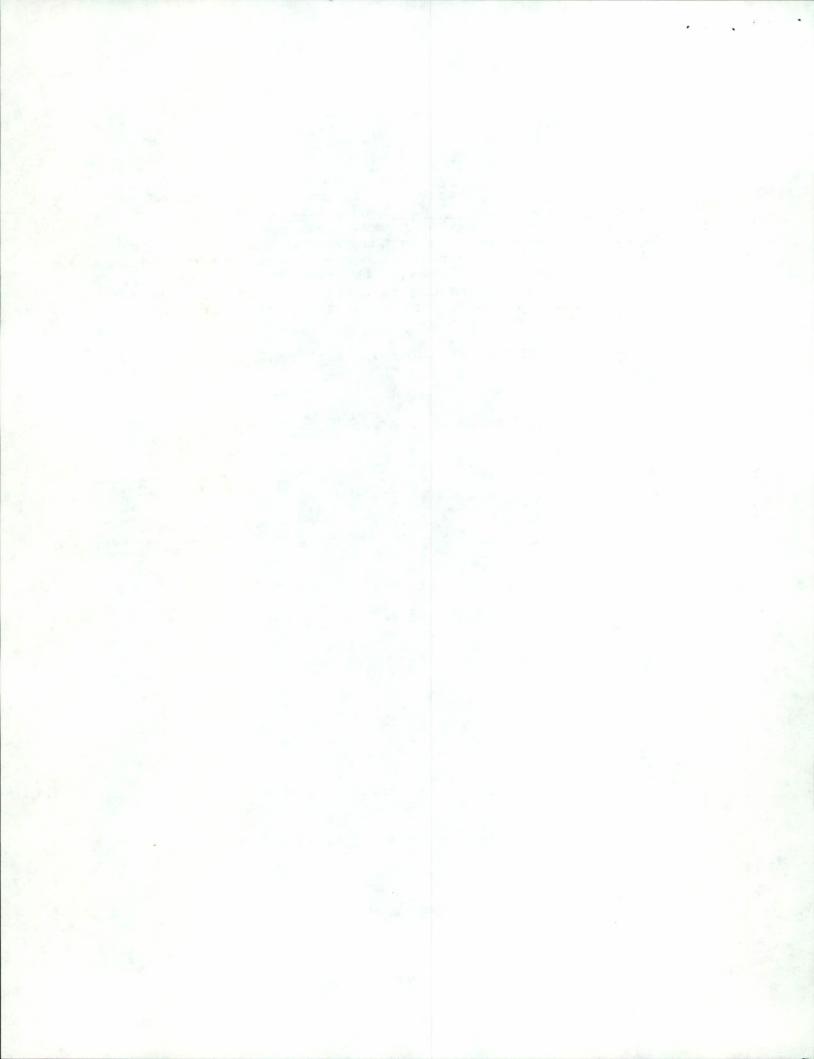
Name: William Fraley

Title: Vice President



State of California SS. County of Fresno \_\_\_\_, 1995, before me, and Notary Public, personally appeared Elkins and personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same in their authorized capacity, and that by their signature on the instrument the persons or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. ulie D. Strant (seal) Signature JULIE D. GRAN Assignment DUP Cert. Comm. #998033

PTARY PUBLIC - CALIFORNIA FRESNO COUNTY FORM. Expires June 20, 1997



State of California )

County of <u>Fresno</u> ) ss.

on <u>Dec.</u>, 1995, before me, <u>Julie D. Gyant</u>, Notary Public, personally appeared and <u>Bill Fulley</u> personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same in their authorized capacity, and that by their signature on the instrument the persons, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature

PUP Assignment

JULIE D. GRANT
Comm. #998033
NOTARY PUBLIC - CALIFORNIA
FRESNO COUNTY
Ccmm. Expires June 20, 1997

# SCHEDULE 1 ASSIGNMENT (PVP CERTIFICATES)

Certificate No.	Date	Name of Owner	Name of Novel Variety
8100060	03/24/83	Germain's, Inc.*	GERMAIN'S ACALA GC-363
8100061	03/24/83	Germain's, Inc.*	GERMAIN'S ACALA GC-445
8100062	03/24/83	Germain's, Inc.*	GERMAIN'S ACALA GC-555
8200166	03/24/83	Germain's, Inc.*	GERMAIN'S ACALA GC-510
8400129	09/28/84	Germain's, Inc.*	GERMAIN'S ACALA GC-362
8700061	07/31/87	Germain's, Inc. **	GERMAIN'S ACALA GC-410
8800017	11/18/87	Germain's, Inc.**	GERMAIN'S ACALA GC-356
9000235	03/31/93	Germain's, Inc.	GERMAIN'S ACALA GC-702

<sup>\*\*</sup> Assigned to Germain's, Inc. from CWA 23 February 1988
\* Assigned to Germain's, Inc. from CWA 15 November 1984



8100060

8. FLOWER:	
Bracts: 1 = Normal 2 = Frego	Petals: 1 = Cream 2 = Yellow
Nectaries: 1 = Absent 2 = Present	Pollen: 1 = Cream 2 = Yellow
9. SEEDS:	SINCE SECTION
Lint Index (g of lint/100 seeds)	
3 Seed Fuzz: 1 = sparse (Gregg 35) 2 = Moderate (DPL-61)	SJ-2 3 = Heavy (Acala SJ-1) 4 = Tufted (Pima)
10. BOLLS:	, a Fulled (Filma)
3 1 0 Lint Percent	3 9 No. seeds Per Boll
Lint % less than	7 0 3 Grams Seed Cotton Per Boll
Same as 5 Comparison Varitie.	Grams less than
Lint % more than	Same as 5 Comparison Varieties
	Grams more than
2 Locules: 1 = 3-4 2 = 4-5	
Pitting: 1 = None 2 = Fine 3 = Coarse	
Type: 1 = Stormproof (Westburn 70) 2 = Storm Resistant	(Lankart 57) 3 = Open (Deltapine 16)
3 7 Mm Diameter	
Breadth: 1 = Broadest at Base 2 = Broadest at Middle	
3 Shape: 1 = Length Less Than Width 2 = Length Equals Wid	th 3 = Length Greater Than Width
11. BRACTEOLES:	S Esigni dicata Man Widin
	s Width 3 = Length Greater Than Width
2 Feeth: 1 = Fine 2 = Coarse	51.50 元为1.50 元 1.50
	More Than 10
12. FIBER LENGTH:  3 6 Staple Length (32nd inches)	
1 1 4 n. Span Length (2.5%)	In. UHM Length
In. Shorter Than	In. Shorter Than
Length Same as 5 Comparison Varieties	Length Same as Comparison Varieties
In. Longer Than	In. Longer Than
In. Span Length (50%)	In. Mean Length
4 8 Uniformity Index (50%/2.5%)	Uniformity Ratio (Mean/UHM)
13. FIBER STRENGTH ELONGATION AND FINENESS:	WILL STATE OF THE
1 0 3 1000 P.S.I. (Pressley)	2 8 8 Stelometer (T <sub>1</sub> )
80 Elongation (E <sub>1</sub> )	4 3 0 Micronaire
Yarn Tenacity (cN/tex- 27-tex)	medical property of the second
1 4 6 Yarn Strength (Lbs. 22's)	
14. DISEASES: (0 = not tested, 1 = susceptible, 2 = resistant)	The second secon
2 Verticillium Wilt	Bacterial Blight (Race 2)
O Fusarium Wilt	O Rectarial Blight (Other Paral
To a second with	Bacterial Blight (Other Races)
O Root Knot Nematode	Ascochyta Blight
Bacterial Blight (Race 1)	O Phymetotrichum Root Rot

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE LIVESTOCK, POULTRY, GRAIN & SEED DIVISION BELTSVILLE, MARYLAND 20705

(Cotton)

#### **OBJECTIVE DESCRIPTION OF VARIETY**

COTTON (Gossypium spp.)

QXA 2/3/83

H C & A, INC.	GC-363-2	VARIETY NAME 8947 9/10 Acala 60-363
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code)		FOR OFFICIAL USE ONLY
P.O. Box 9656 Bakersfield, CA 93389		81000 60
Place numbers in the boxes (e.g., 0 8 9) for the character decimal.	rs that best describe typical plants of this	variety. The symbol <b>å</b> indicates
1 = Coker 310	I VARIETIES FOR USE BELOW 213	5 = Acala 1517-75 - SJ-2
1 SPECIES: 1 = <u>G</u> . <u>hirsutum</u> L. 2 =	G. barbadense L.	THE STATE OF THE S
2. AREA(S) OF ADAPTATION (0 = Not Tested, 1 = Not Adapted, 2	= Adapted):	
O Delta	Central Central	O High Plains
El Paso Area	n Low Hot Valleys 2 Sa	n Joaquin
Other (Specify)	TOTAL SERVICE SERVICE	parement of an an
3. MATURITY (50% Open Balls, Ideal Method: Date 50% of Crop-Ha	arvested-determined from sequential yield harves	sts. Give method 50% open boll
No. of Days earlier than 5	1000 December 1000	./
Maturity same as Comparison Varieties	Motor Samon Section 1989	en et er i Hadrone (1997)
No. of Days later than	图 2011年初11日本中央	APPEAR WELLER
1 = Early (Tamcot SP 37) 2 = Medium (M	McNair 220) 3 = Late (Stoney	ille 2131
4. PLANT:	3 Late (Stone)	me 215)
Cm Shorter than	Habit: 1 = Spreading, 2 =	Intermediate, 3 = Compact
Height same as 5 Comparison Varities	Poliage: 1 = Sparse, 2 = Ir	ntermediate, 3 = Dense
1 2 Cm Taller than	3 Stem: 1 = Lodging, 2 = In	termediate, 3 = Erect
6 Cm to 1st Fruiting Branch (from cotyledonary node)		
No. of Nodes to 1st Fruiting Branch		
Stem Pubescence:		
1 = Glabrous 2 = Sparse Pubescence	3 = Pubescent (Stoneville 213)	4 = Heavy Pubescence
5. LEAF:  [10] Cm Width of Widest Leaves at Maturity	Type: 1 = Normal, 2 = Ok	ra, 3 = Super Okra
Pubescense: 1 = Glabrous (Tamcot SP21S) 3 = Pubescent (Stoneville 213)	2 = Sparse Pubescence (DPL-16)	
Color: 1 = Greenish Yellow (Cascot B-2) 2 = Light	4 = Heavy Pubescence  Green (Stoneville 603) 3 = Dark Gree	en (Coker 310)
4 = Other (Specify)  2 Nectaries: 1 = Absent 2 = Present		
6. FUITING BRANCH:		Committee of the commit
3 Type: 1 = Cluster 2 = Short	3 = Normal	
2 Growth: 1 = Determinate 2 = Intermediate	3 = Indeterminate	
7. GLANDS (Gossypol):		
Gland Density (Vegetative): 1 = Glandless 2 = Low	3 = Medium (Stoneville 213) 4 = High	
Gossypol % (Buds): 1 = Low 2 = Medium (Stangville)	2131 3 = High	The second of the second

14. DISEASES (Continued): (0 = not tested, 1 = susceptible, 2 = resistant)	
Rhizoctonia solani	Southwestern Cotton Rust
Anthracnose	Thielaviopsis basicola
Pythium (specify species)	Diplodia Boll Rot
Reniform Nematorle	Other (specify)
Alternaria macrospora	_ Other (specify)
15. INSECTS: (0 = not tested, 1 = susceptible, 2 = resistant)	<b>建设在1000年的发展的企业的发展。</b>
Boll Weevil	① Thrip
O Aphid	Cutworm Cutworm
© Fleahopper	Alabama argillacea (Leaf Worm)
Fall Armyworm	O Spider Mite
Grasshopper	Heliothis zea (Bollworm)
O Lygus	Heliothis verescens (Tobacco bud worm)
Pink Bollworm	Other (specify)
O Stink Bug	Other (specify)
16. GIVE VARIETY THAT MOST CLOSELY RESEMBLES THE SUBMITT	ED VARIETY FOR EACH OF THE FOLLOWING CHARACTERISTICS:

3 = More than, darker, or superior, etc. Use comparison varieties or other more appropriate varieties.

CHARACTER	SIMILAR VARIETY	D.R.	CHARACTER	SIMILAR VARIETY	D.R.
Leaf Pubescence	SJ-2	2	1000 PSI	SJ-2	3
Seed Index	SJ-2	2	Stelometer (T <sub>1</sub> )	SJ-2	3
Lint Index			Elongation (E <sub>1</sub> )	SJ-2	2
Yarn Tenacity	SJ-2	2	Micronaire	SJ-2	2
Verticillium Wilt Resistance	SJ-2	3	Fusarium Wilt Resistance		

<sup>17.</sup> COMMENTS: (Present information which cannot be adequately described in 1 to 16 that significantly distinguishes your variety such as comparative disease reactions, other expressions of maturity:)

GS-363-2 is significantly more verticillium tolerant than Acala

SJ-2. The fiber and yarn strength is greater than SJ-2.

